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PATENT

Attorney Reference Number 6541-60555-01  
Application Number 09/745,268

### REMARKS

Consideration and entry of the foregoing amendments are requested. These amendments address issues raised in the subject final action and hence could not have been made earlier.

The amendment to the specification is to correct a readily discernible error. No new matter is submitted.

Claims 1-7, 9-17, and 21-36 are the subject of the Office action. In the instant paper, claims 1, 11, 23, 27, and 35 are amended; claim 29 is canceled without prejudice; claims 8 and 18-20 were previously canceled; and all other pending claims are unchanged.

The amendments to claim 1 are supported by, for example, claim 21; page 5, line 13 to page 6, line 2; page 6, lines 8-18; page 7, lines 3-5 of the specification.

The amendments to claim 11 are supported in the same manner as respective amendments made to claim 1.

The amendments to claim 23 are supported in the same manner as respective amendments made to claim 1 and by FIG. 2 and page 7, line 3 to page 8, line 11 of the specification.

The amendments to claim 27 are supported in the same manner as respective amendments made to claim 1.

The amendments to claim 35 are supported in the same manner as respective amendments made to claim 1. See also claims 2 and 12.

Claims 1-5, 7, 9, 11-15, 17, 19, and 27-36 stand rejected for alleged anticipation (35 U.S.C. §102(e)) by Garceran. This rejection is traversed in view of the amendments made herein to claims 1, 11, and 27. This rejection is moot with respect to claim 19 which was previously canceled.

Independent claim 1, as amended, is directed to a method of monitoring performance of a wireless system. The method includes the step of transmitting a call, comprising a communication signal, from a mobile wireless device to a radio base station. The communication signal comprises call data. Another step involves receiving, using a first receiver associated with the radio base station, the communication signal and delivering the communication signal to a switch that forwards the call. Another step involves receiving, using a second receiver associated with the radio base station, the communication signal and obtaining uplink performance parameters associated with the communication signal. Location information of the mobile wireless device is obtained by analyzing the communication signal received by the second receiver. The performance of the wireless system is

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evaluated using the uplink performance parameters associated with the communication signal received by the second receiver from the mobile wireless device and the location information of the mobile wireless device. Thus, the first and second receivers have different respective tasks. See, e.g., the instant specification on page 5, lines 13-18.

Garceran does not disclose or suggest using first and second receivers at the radio base station for performing the respective tasks recited in claim 1 as amended. Garceran also does not teach or suggest how or why a second receiver would be used, or how one would go about including a second receiver, especially one configured to perform the instantly claimed task. Therefore, claim 1 as amended is not anticipated by or obvious from Garceran.

Since claim 1 is properly allowable over Garceran, claims 2-7, 9-10, and 30-33 that depend from claim 1 also are properly allowable. These dependent claims include all the steps of claim 1 and present new respective features that are combined with claim 1. Hence, the dependent claims present respective combinations of features that are patentable in their own right over Garceran.

Independent claim 11, as amended, is directed to a method of monitoring performance of a wireless system. The method includes the step of transmitting respective calls comprising respective communication signals from a plurality of mobile wireless devices to a radio base station. The communication signals comprise respective call data. Using a first receiver associated with the radio base station, the communication signals are received and delivered to a switch that forwards the respective calls. Using a second receiver associated with the radio base station, the communication signals are received and uplink performance parameters associated with the communication signals are obtained. Location information of the plurality of mobile wireless devices is obtained by analyzing the communication signals. The performance of the wireless system is evaluated using the uplink performance parameters and the location information of each of the plurality of mobile wireless devices.

As discussed above in connection with claim 1, Garceran does not disclose or suggest using first and second receivers at the radio base station for performing the respective tasks recited in claim 11 as amended. Garceran also does not teach or suggest how or why a second receiver would be used, or how one would go about including a second receiver, especially one configured to perform the instantly claimed task. Therefore, claim 11 as amended is not anticipated by or obvious from Garceran.

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Since claim 11 is properly allowable over Garceran, claims 12-17 that depend from claim 11 also are properly allowable. These dependent claims include all the steps of claim 11 and present new respective features that are combined with claim 11. Hence, the dependent claims present respective combinations of features that are patentable in their own right over Garceran.

Independent claim 27, as amended, is directed to a system for monitoring performance of a wireless system. The wireless system includes a wireless device that transmits communication signals to a radio base station. The communication signals comprise call data produced by the wireless device and includes at least one uplink performance parameter. The system comprises a first receiver, located at the radio base station, that receives the communication signals and transmits the communication signals to a switch that forwards a call associated with the communication signals. A location measurement unit in the wireless device determines the location of the wireless device and includes corresponding location data in the communication signals. A second receiver, located at the radio base station, receives the at least one uplink performance parameter and the location data in the communication signals. A system analyzer is coupled to the switch. The system analyzer evaluates the performance of the wireless system based on the received at least one uplink performance parameter and the location of the wireless device.

As discussed above in connection with claim 1, Garceran does not disclose or suggest using first and second receivers at the radio base station for performing the respective tasks recited in claim 27 as amended. Garceran also does not teach or suggest how or why a second receiver would be used, or how one would go about including a second receiver, especially one configured to perform the instantly claimed task. Therefore, claim 27 as amended is not anticipated by or obvious from Garceran.

Since claim 27 is properly allowable over Garceran, claim 28 that depends from claim 27 also is properly allowable. This dependent claim includes all the features of claim 27 and presents new features that are combined with claim 27. Hence, the dependent claim presents a respective combination of features that is patentable in its own right over Garceran.

Claim 35, as amended, is directed to a method of assessing wireless system performance. In the method, using a first receiver, downlink call data associated with a call to a mobile wireless device are collected. This downlink call data is collected in real time. Using a second receiver, uplink call data associated with the call to the mobile wireless device are collected. This uplink call data is also

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collected in real time. Location information associated with the mobile wireless device is obtained. Based on the downlink call data, the uplink call data, and the location information, system performance is evaluated.

As discussed above in connection with claim 1, Garceran does not disclose or suggest using first and second receivers, whether in real time or not, for performing the respective tasks recited in claim 35 as amended. Garceran also does not teach or suggest how or why a second receiver would be used, or how one would go about including a second receiver, especially one configured to perform the instantly claimed task. Therefore, claim 35 as amended is not anticipated by or obvious from Garceran.

Since claim 35 is properly allowable over Garceran, claim 36 that depends from claim 35 also is properly allowable. This dependent claim includes all the features of claim 35 and presents new features that are combined with claim 35. Hence, the dependent claim presents a respective combination of features that is patentable in its own right over Garceran.

Claims 21-24 and 26 stand rejected for alleged obviousness from Garceran in view of Hawkes. This rejection is traversed. Claim 21 is directed to a system for monitoring performance of a wireless system. The system comprises a plurality of wireless devices that transmit communication signals to a radio base station. The communication signals comprise respective call data and at least one uplink performance parameter. A first receiver located at the radio base station receives the communication signals and transmits the communication signals to a switch. A second receiver located at the radio base station monitors the communication signals and transmits timestamp data associated with the communication signals to the switch. The timestamp data are associated with respective locations of the wireless devices. A system analyzer, coupled to the switch, evaluates the performance of the wireless system based on the respective uplink performance parameters and the respective locations of the wireless devices.

The Office action admits that "Garceran does not specifically disclose a second receiver located at the radio base station which monitors the communication signals and transmits timestamp data associated with the communication signals to the switch, the timestamp data being associated with respective locations of the wireless devices." The Office action contends that this deficiency is supplied by Hawkes. This contention is traversed.

As noted above, Garceran does not teach or suggest how or why a second receiver would be

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used, or how one would go about including a second receiver, especially one configured to perform the tasks recited in claim 21. Hence, the skilled person would not be motivated by Garceran to seek a second receiver or to seek any information regarding how or why to incorporate a second receiver in the instantly claimed manner. Therefore, any teaching, suggestion, or motivation to combine Garceran with Hawkes is absent. Hawkes mentions more than one receiver, but the receivers do not have separate tasks, in contrast to what is claimed. In the cited text of Hawkes (col. 11, lines 4-11 and 52-59), a base station can have multiple antennas, wherein each antenna covers a respective angular range of compass directions. Each said antenna can be connected to a respective receiver, but these receivers are identical and have identical functions. Therefore, Hawkes does not fulfill the deficiencies of Garceran.

Furthermore, Garceran and Hawkes appear to be concerned only with locating emitters in a prescribed geographic area, and more specifically to locating a single mobile phone operating in a service area or surrounding areas. The references, either alone or in combination, fail to teach or suggest collecting information from a plurality of wireless devices to evaluate performance of a system of such devices. Garceran does not appear to mention this aspect, and Hawkes appears specifically to teach away from this aspect. See Hawkes, col. 2, lines 57-58.

Hawkes also fails to teach or suggest evaluating performance. All the receivers in Hawkes simply determine respective angular location. Col. 11, lines 52-67. There is no perceived teaching in Hawkes to combine a location-based receiver with another receiver for collecting call data to evaluate system performance.

Since claim 21 is allowable over any combination of Garceran and Hawkes, claim 22 which depends from claim 21 is also allowable because it includes all the features of claim 21 and adds at least one feature to the combination that is patentable in its own right over the cited references.

Claim 23, as amended, is directed to a system for monitoring performance of a wireless system. The system comprises a plurality of wireless devices that transmit respective calls comprising respective communications signals to a radio base station. The communication signals comprise respective call data and at least one respective uplink performance parameter. The system includes a first receiving means, associated with the radio base station, for receiving the communication signals and transmitting the respective communication signals to a switch means for forwarding the calls. A second receiving means, associated with the radio base station, is for receiving the communication

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signals for determining respective locations of the wireless devices. A monitoring means is included, for monitoring the communication signals received by the second receiving means and for transmitting timestamp data associated with the communication signals to the switch means. The timestamp data are associated with respective locations of the wireless devices. The system also includes a system analyzer means, coupled to the switch means, for evaluating the performance of the wireless system based on the respective uplink performance parameters and the respective locations of the wireless devices.

Claim 24 is directed to a system for monitoring performance of a wireless system that includes a plurality of wireless devices transmitting communication signals to a radio base station. The communication signals comprise respective call data and at least one uplink performance parameter. The system comprises a first receiver, located at the radio base station, that receives the communication signals and transmits the communication signals to a switch. The system also comprises a second receiver, located at the radio base station, that receives respective location information associated with each of the plurality of wireless devices, wherein the location information is associated with the respective communication signals. The system also includes a system analyzer that is coupled to the switch and that evaluates the performance of the wireless system based on the at least one uplink performance parameter and the respective locations of the wireless devices.

In the Office action, claims 23-24 were "interpreted and rejected for the same reason as set forth in claim 21." Therefore, Applicant responds in the same manner as set forth above regarding claim 21.

Since claim 24 is allowable over any combination of Garceran and Hawkes, claims 25-26 that depend from claim 24 are also allowable because they each include all the features of claim 24, and each adds at least one feature to the combination that is patentable in its own right over the cited references.

Claims 6, 10, 16, 20, and 25 stand rejected for alleged obviousness from a combination of Garceran and Kong. This rejection is traversed.

This rejection is moot with respect to claim 20, which was previously canceled without prejudice.

Claims 6 and 10 depend from claim 1 and are properly allowable over Garceran for reasons as discussed above with respect to claim 1. Applicant agrees with the admission in the Office action that

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Garceran does not specifically disclose that the time difference of arrival location processor is in the mobile wireless device. Kong is cited for allegedly disclosing this feature. However, in view of the deficiencies of Garceran, this alleged disclosure of Kong is immaterial and does not fulfill the deficiencies of Garceran.

Claim 16 depends from claim 11, and is properly allowable over Garceran for reasons as discussed above with respect to claim 11. The Office action interpreted and rejected the claim for the same reason as set forth in claim 6. Therefore, Applicant responds in the same manner as set forth above regarding claim 6.

Claim 25 depends from claim 24, and is properly allowable over Garceran for reasons as discussed above with respect to claim 24. The Office action interpreted and rejected the claim for the same reason as set forth in claim 10. Therefore, Applicant responds in the same manner as set forth above regarding claim 10. Applicant also points out that claim 24 was rejected for alleged obviousness from a combination of Garceran and Hawkes. Therefore, it appears improper for the Office action to reject claim 25, which depends from claim 24, for alleged obviousness from a combination of Garceran and Kong.

For reasons discussed above, claims 1-7, 9-17, 21-28, and 30-36 are properly allowable and early action to such end is requested.

If any issues remain after consideration and entry of this paper, the examiner is requested to contact the undersigned to schedule a telephonic interview, to which Applicant is entitled as set forth on page 19 of Applicant's previous response.

Respectfully submitted,

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